

Elevonic® Class
Environmental Features

BENEFITS
Highly energy-efficient elevators
Dramatic reduction in elevator electrical consumption
Reduced electrical feeder size and emergency generator requirements
Substantial reductions of airborne carbon dust
Environmentally friendly 'by design'

Environmental stewardship is a worldwide corporate responsibility. When it comes to traction elevators, Otis' primary focus is on electrical consumption, which accounts for almost half of all carbon dioxide emissions worldwide.

FEATURES
<p>A Long-Standing Commitment</p> <p>In the 1980s, Otis reduced electrical energy consumption by 35 percent, while substantially reducing airborne carbon-brush dust in machines. Otis accomplished this by replacing the rotating motor-generator sets powering its DC gearless machines with static drives using controlled rectifiers (SCRs).</p>
<p>Additional Environmental Benefits</p> <p>Otis' ACVF drives reduce initial starting current, eliminate line notching and provide a consistent power factor regardless of car load or speed. For nonregenerative drives, Otis also offers optional filtering to improve power factor to suit specific requirements.</p>

ACVF Powertrains

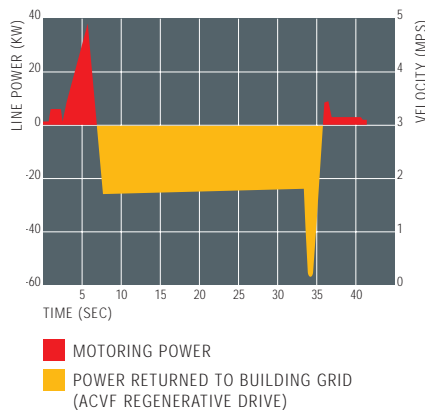
Otis' advanced AC variable-voltage, variable-frequency (ACVF) powertrains are, quite simply, the most energy efficient in the industry. Equipped with a regenerative drive,* the ACVF powertrain reduces energy consumption (kW-hr/yr) by approximately 15 percent vs. SCR drives, and by almost half vs. old motor generators.

What's more, these drives provide a power factor that is near unity—and actually return energy to a building's electrical grid for reuse. This reduces electrical feeder size and emergency generator requirements.

Think Smarter, Move More Efficiently

Otis has also reduced electrical energy consumption by decreasing starts and stops. That doesn't mean passengers have to wait longer. Just the opposite: with the company's highly efficient dispatching systems, Otis has reduced the required starts and stops by dramatically improving elevator group traffic performance.

The result: elevator systems that are environmentally friendly.



Elevator line power and velocity for down run

*optional for speeds less than 4 mps (800 fpm)